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Testimony Against LD 212 & LD 430

Ed Friedman, Chair, 4/15/25

<u>LD 212, HP0135</u> An Act to Require the Valuation of Energy Produced by Hydropower Dams and Exploration of Alternative Ownership Options Before They Are Removed.

<u>LD 430, HP0284</u> An Act to Impose Moratoria on Hydropower Dam Removal and on Water Release from Nonhydropower Dams and to Make Other Changes to the Laws Regulating Such Dams

Senator Tepler, Representative Doudera and members of the Joint Committee on Environment & Natural Resources,

Riparian areas are located at the intersection of aquatic and terrestrial habitats and are considered to be biodiversity "hotspots" (Richardson and Danehy 2007). Large numbers of species can be found in riparian areas and in Maine, up to 85% of vertebrate species rely on riparian habitat at some stage of their life cycle (Bryan and Charry 2006).

We are not alone. High species richness has been long recognized as typical of riparian ecosystems (Gregory et al., 1991, Naiman et al., 1993, Naiman and Décamps, 1997). Numerous studies have compared riparian to upslope habitats and revealed a higher number of species in riverine communities (Gregory et al., 1991, Hagan et al., 2006, Rodríguez-González et al., 2008). Covering only narrow fractions of the landscape – riparian zones cover only 2% of the continental area of Europe (Clerici et al., 2011) – riparian habitats contribute disproportionately to regional biodiversity (González et al., 2017). Therefore, they are often recognized as biodiversity hotspots (Capon et al., 2013, Kuglerová et al., 2014).

Several environmental factors account for a high number of species in the riparian zone, including natural disturbances (<u>Lite et al., 2005</u>, <u>Biswas and Mallik, 2010</u>), high productivity (<u>Pollock et al., 1998</u>, <u>Hérault and Honnay, 2005</u>, <u>Araujo Calçada et al., 2015a</u>), level of groundwater table (<u>Jansson et al., 2007</u>, <u>Kuglerová et al., 2014</u>, <u>Audet et al., 2015</u>) and flow-faciliated dispersal of <u>propagules</u> (<u>Jansson et al., 2005</u>, <u>Moggridge et al., 2009</u>, <u>Merritt et al., 2010</u>, Nilsson et al., 2010, Araujo Calçada et al., 2015b).

Let's face it, rivers and streams should be alive. Healthy flowing waters help us all.

In looking at dams, an analogy I've used for years is that of coronary artery disease [CHD]. Free-flowing rivers are literally our lands life's blood [arteries and veins] with migrating fish and many other organism [i.e. mussels, deer, eagles, insects, otter, bear, trees, shrubs, etc.] using the waters and in doing so, actively moving necessary nutrients from saltwater to freshwater and back, from river to upland and back, from land to air and back.

It might help to think of all these living beings as red, white and other cells in the blood. Dams block the flows albeit to different degrees, as does CAD in blood vessels. Yes we can get by with some plaque but with enough built up we have stenosis, then a heart attack and then die without

surgical intervention, if caught in time. Even with surgery, and ensuing stent or bypass, we may be taking a lifetime of medication or may need major changes to our lifestyle. None of these are as good as free-flowing, unobstructed arteries.

More recently I've considered another analogy. If CAD is analogous to dams, slavery is a pretty good analogy to our history with Maine rivers. Maine's European settlement and development was and still is to some extent based on making rivers our slaves, in many cases working them to death or at least severely ill-health. Water power built Maine, mechanically at first, followed by and to this day hydro-electrical power. The Clean Water Act, initiated in large part by Senator Muskie, attempted and still attempts to free 'the slaves'. His efforts have been quite successful regarding pollution from various river-poisoning toxins, wood pulp debris and sewage but coronary artery disease persists.

Removing dams to make our rivers healthy again is a huge effort already, whether through FERC proceedings for hydro dams or dealing with local landowners, dam owners and towns for non-hydro dams. I'd suggest it is easier and less costly to build a dam than remove one to restore a healthy circulation system.

As even Maine Preservation <u>notes</u>: Many of the remaining historic dams no longer serve the purpose for which they were built and have fallen into disrepair, facing uncertain futures. Some communities and individual dam owners are now considering removing dams due to the cost of ongoing maintenance. In addition, dams have created significant fish passage barriers and continue to pose risks to species like Maine's iconic but endangered Atlantic salmon. Efforts to improve fish passage through the introduction of fish ladders and lifts along the existing dams are also costly. Once thought to help control flooding, research now shows that dam spillways are often inadequately sized to dispense floodwaters, especially given the increase in extreme weather events and precipitation due to climate change. Dams also restrain and inhibit the natural flow of sediment in waterways, which interrupts natural processes that contribute to the maintenance and nourishment of downstream habitats.

These two LD's threaten to make the already difficult task of reviving Maine's health and economy even more difficult. Please vote Ought Not to Pass on both bills.

Thank you.



Approximately 900 Maine dams-a physical pox upon the state.

https://maine.hub.arcgis.com/maps/maine::maine-dams-levees-impoundments-and-barriers-2022/about